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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,640	12/05/2003	Hirokazu Kawamoto	03500.013399.1	9632

5514 7590 06/15/2006

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EXAMINER	
DULANEY, BENJAMIN O	
ART UNIT	**PAPER NUMBER**
2625	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/727,640	KAWAMOTO, HIROKAZU	
	Examiner	Art Unit	
	Benjamin O. Dulaney	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/3/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1) Claims 1-18, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,881,213 by Shaw et al., and further in view of U.S. patent 6,070,000 by Mori, and further in view of U.S. patent 5,995,722 by Kishida.

2) Regarding claims 1, 6, and 11, Shaw teaches a print control apparatus which can communicate with a plurality of printing apparatuses via a predetermined communication medium, comprising: first converting means for functioning as a common printer driver for receiving from a graphic engine drawing information generated by the graphic engine from output data generated by an arbitrary application and for converting the received drawing information into independent data which does no depend on each of the plurality of printing apparatuses, the converted independent data being stored in a spooler (Column 4, lines 2-7); despooling means for despooling the independent data stored in the spooler such that one of a plurality of printer drivers may generate print control information specific to a corresponding one of the plurality of printing apparatuses based on contents of the despooled independent data, and for

retaining the independent data in the spooler even after despooling the independent data (Column 4, lines 18-27; Column 3, lines 11-25); and for controlling said despooling means to despool the independent data retained in the spooler so as to generate print control information by the other printer driver (Column 3, lines 11-25; Column 4, lines 60-67).

Shaw clearly shows the device-independent data staying spooled until the data is actually printed.

Shaw does not teach discriminating means for discriminating an occurrence of a print processing error by monitoring a print processing state of the one printing apparatus which corresponds to the one printer driver; and control means for selecting another one of the plurality of printer drivers corresponding to another one of the plurality of printing apparatuses when it is determined by said discriminating means that the print processing error has occurred in the one printing apparatus.

Mori teaches discriminating means for discriminating an occurrence of a print processing error by monitoring a print processing state of the one printing apparatus which corresponds to the one printer driver (Column 4, lines 1-14); and control means for selecting another one of the plurality of printer drivers corresponding to another one of the plurality of printing apparatuses when it is determined by said discriminating means that the print processing error has occurred in the one printing apparatus (Column 4, lines 1-14).

Shaw and Mori are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw and Mori to add error monitoring. The motivation for doing so would have been to detect when "the first printer is incapable of printing" (Column 4, line 1).

Shaw (as modified by Mori) does not teach printing drawing/graphics information.

Kishida teaches computer processing of documents that contain drawing information (Column 3, lines 25-28).

Shaw (as modified by Mori) and Kishida are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori) and Kishida to add processing drawing information. The motivation for doing so would have been for "processing ... document containing mixture of drawings ... and the like" (Column 3, lines 25-28). Therefore it would have been obvious to combine Shaw (as modified by Mori) and Kishida to obtain the invention as specified by claims 1, 6, and 11.

3) Regarding claims 2, 7 and 12, Shaw does not teach an apparatus according to claim 1, wherein the print processing error includes an engine operation error of the one printing apparatus.

Mori teaches an apparatus according to claim 1, wherein the print processing error includes an engine operation error of the one printing apparatus

(Column 4, lines 1-14; out of paper condition is considered to be an engine operation error).

Shaw and Mori are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw and Mori to add error monitoring. The motivation for doing so would have been to detect when "the first printer is incapable of printing" (Column 4, line 1). Therefore it would have been obvious to combine Shaw and Mori to obtain the invention as specified by claims 2, 7, and 12.

4) Regarding claims 3, 8, and 13, Shaw does not teach an apparatus according to claim 1, further comprising: setting means for setting, for each of the plurality of printing apparatuses, the printing apparatus of a next priority to which the independent data stored in the spooler should be transferred when the print processing error occurs; and memory means for storing a list of the printing apparatuses of a next priority which have been set by said setting means and to which the independent data should be transferred, and wherein said control means selects the other printer driver corresponding to another printing apparatus set in the list of the printing apparatuses of the next priority stored in said memory means.

Mori teaches an apparatus according to claim 1, further comprising: setting means for setting, for each of the plurality of printing apparatuses, the printing apparatus of a next priority to which the independent data stored in the

spooler should be transferred when the print processing error occurs (Column 4, lines 1-14); and memory means for storing a list of the printing apparatuses of a next priority which have been set by said setting means and to which the independent data should be transferred (Column 4, lines 45-49), and wherein said control means selects the other printer driver corresponding to another printing apparatus set in the list of the printing apparatuses of the next priority stored in said memory means (Column 4, lines 27-34).

Shaw and Mori are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw and Mori to add error monitoring. The motivation for doing so would have been to detect when "the first printer is incapable of printing" (Column 4, line 1). Therefore it would have been obvious to combine Shaw and Mori to obtain the invention as specified by claims 3, 8, and 13.

5) Regarding claims 4, 9, and 14, Shaw teaches an apparatus according to claim 1, wherein said printing apparatus includes a local printer and network printers (Column 3, lines 46-47 and 60-62).

6) Regarding claims 5, 10, and 15, Shaw teaches an apparatus according to claim 4, wherein said network printers include: a first network printer which is connected to said predetermined communication medium via a server; and a second network printer which is directly connected to said predetermined communication medium (Figure 1A; Column 3, lines 42-49).

7) Regarding claims 16, 17, and 18, Shaw does not teach an apparatus according to claim 1, further comprising second discriminating means for discriminating a compatibility between the printing apparatus of the next priority selected by said selecting means and a printing apparatus of a previous priority, and wherein said control means transfers the converted print control information to the printing apparatus of the next priority when it is determined by said second discriminating means that there is the compatibility between the printing apparatus of the next priority and the printing apparatus of the previous priority.

Mori teaches an apparatus according to claim 1, further comprising second discriminating means for discriminating a compatibility between the printing apparatus of the next priority selected by said selecting means and a printing apparatus of a previous priority, and wherein said control means transfers the converted print control information to the printing apparatus of the next priority when it is determined by said second discriminating means that there is the compatibility between the printing apparatus of the next priority and the printing apparatus of the previous priority (Column 5, lines 6-21).

Shaw and Mori are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw and Mori to add compatibility verification. The motivation for doing so would have been to consider "that some printing devices might not be suitable for printing certain types of printing data" (Column

5, lines 10-12). Therefore it would have been obvious to combine Shaw and Mori to obtain the invention as specified by claims 16, 17, and 18.

8) Regarding claims 25-27, Shaw (as modified by Mori) does not teach an apparatus according to claim 1, wherein said independent data is a drawing object.

Kishida teaches an apparatus according to claim 1, wherein said independent data is a drawing object (Column 3, lines 25-28).

Shaw (as modified by Mori) and Kishida are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori) and Kishida to add processing drawing information. The motivation for doing so would have been for "processing ... document containing mixture of drawings ... and the like" (Column 3, lines 25-28). Therefore it would have been obvious to combine Shaw (as modified by Mori) and Kishida to obtain the invention as specified by claims 25-27.

9) Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,881,213 by Shaw et al., and further in view of U.S. patent 6,070,000 by Mori, and further in view of U.S. patent 5,995,722 by Kishida as applied to claims 1 and 6 above, and further in view of U.S. patent 5,566,278 by Patel et al.

10) Regarding claims 19 and 21, Mori teaches an apparatus according to claim 1, further comprising: means for, when the print in said printing apparatus is unsuccessfully completed and when the print cannot be performed even in the printing apparatus on an output destination side after the change (Column 4, lines 1-14).

Mori does not teach notifying the user of such a fact; and means for allowing the user to select whether the subsequent print is continued or not and, when the user selects the stop of the print, allowing the printing apparatus before the change to re-execute the print.

Patel teaches notifying the user of such a fact; and means for allowing the user to select whether the subsequent print is continued or not and, when the user selects the stop of the print, allowing the printing apparatus before the change to re-execute the print (Column 12, lines 53-64).

Shaw (as modified by Mori and Kishida) and Patel are combinable because they are both from the printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori and Kishida) and Patel to add user notification. The motivation for doing so would have been so that the "user ... notified and the printing process can continue once the problem is rectified" (Column 12, lines 58-60). Therefore it would have been obvious to combine Shaw (as modified by Mori and Kishida) and Patel to obtain the invention as specified by claims 19 and 21.

11) Regarding claims 20 and 22, Shaw teaches an apparatus according to claim 19, further comprising means for modifying print data which is sent to the printing apparatus on the basis of the data that does not depend on the printing apparatus and substituting a print instruction of the user in the case where the print instruction of the user cannot be executed because of a shortage of an ability of the printing apparatus after the change (Column 7, lines 12-15).

12) Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,881,213 by Shaw et al., and further in view of U.S. patent 6,070,000 by Mori, and further in view of U.S. patent 6,552,813 by Yacoub, and further in view of U.S. patent 5,566,278 by Patel et al.

13) Regarding claim 23, Shaw teaches a computer readable memory medium to store a computer program which enables an arbitrary printing apparatus to execute a print, wherein said program comprises the steps of: converting device-independent data formed by a print control means into print data for printing by a first printing apparatus (Column 4, lines 19-27), wherein the device-independent data does not depend on a particular printing apparatus (Column 4, lines 2-7); transmitting the print data to the first printing apparatus (Column 4, lines 19-27).

Shaw does not teach monitoring a state of the transmitted print data for print completion; when the print is unsuccessfully completed, changing to a second printing apparatus on an output destination side on the basis of the device-independent data, converting the print data into print data specific to the second printing apparatus, and executing the print; when a print instruction of the

user, which the first printing apparatus is capable of executing, cannot be executed as it is by the second printing apparatus, notifying the user of such a fact; allowing the user to select whether or not to print using the second printing apparatus, and when the user elects not to print using the second printing apparatus, allowing the first printing apparatus to re-execute the print.

Mori teaches monitoring a state of the transmitted print data for print completion; when the print is unsuccessfully completed, changing to a second printing apparatus on an output destination side on the basis of the device-independent data, converting the print data into print data specific to the second printing apparatus, and executing the print; when a print instruction of the user, which the first printing apparatus is capable of executing, cannot be executed as it is by the second printing apparatus (Column 4, lines 1-14).

Patel teaches notifying the user of such a fact (Column 12, lines 53-64).

Yacoub teaches allowing the user to select whether or not to print using the second printing apparatus, and when the user elects not to print using the second printing apparatus, allowing the first printing apparatus to re-execute the print (Column 2, line 49 – Column 3, line 5).

In accordance with Yacoub, the user has the option of choosing another printer or clearing the error for the first printer and in effect re-executing the job on the first printer.

Shaw, Mori, Patel, and Yacoub are all combinable because they are all from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw and Mori to add error monitoring. The motivation for doing so would have been to detect when "the first printer is incapable of printing" (Column 4, line 1).

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori) and Patel to add user notification. The motivation for doing so would have been so that the "user ... notified and the printing process can continue once the problem is rectified" (Column 12, lines 58-60).

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori and Patel) and Yacoub to add printer usage choice. The motivation for doing so would have been to use "a printer chosen by the user" (Column 3, lines 4-5). Therefore it would have been obvious to combine Shaw, Mori, Patel, and Yacoub to obtain the invention as specified by claim 23.

14) Regarding claim 24, Shaw teaches a medium according to claim 23, wherein said program further comprises the step of, when the print instruction of the user cannot be executed because of a shortage or an ability of the second printing apparatus, modifying the device-independent print data that is sent to the printing apparatus and substituting the print instruction of the user (Column 7, lines 12-15).

15) Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,881,213 by Shaw et al., and further in view of U.S. patent 6,070,000 by Mori, and further in view of U.S. patent 6,552,813 by Yacoub, and further in view of U.S. patent 5,566,278 by Patel et al. as applied to claim 23 above, and further in view of U.S. patent 5,995,722 by Kishida.

Shaw (as modified by Mori, Yacoub, and Patel) does not teach a medium according to claim 23, wherein said device-independent data is a drawing object.

Kishida teaches a medium according to claim 23, wherein said device-independent data is a drawing object (Column 3, lines 25-28).

Shaw (as modified by Mori, Yacoub, and Patel) and Kishida are combinable because they are both from the network-printing field of endeavor.

It would have been obvious to one skilled in the art at the time the invention was made to combine Shaw (as modified by Mori, Yacoub, and Patel) and Kishida to add processing drawing information. The motivation for doing so would have been for "processing ... document containing mixture of drawings ... and the like" (Column 3, lines 25-28). Therefore it would have been obvious to combine Shaw (as modified by Mori, Yacoub, and Patel) and Kishida to obtain the invention as specified by claim 28.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin O. Dulaney whose telephone

number is (571) 272-2874. The examiner can normally be reached on Monday - Friday (9am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Twyler M. Lamb
Supervisory Patent Examiner